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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,210

01/13/2005

Horst Surburg

48200

6998

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7590

03/27/2008

ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P.

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EXAMINER

DEES, NIKKI H

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/521,210	<b>Applicant(s)</b> SURBURG ET AL.	
	<b>Examiner</b> Nikki H. Dees	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>13 January 2005</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mao et al. (EP 1,096,004 A2) in view of Ashurst (Ashurst, P.R. 1999. Food Flavorings (3rd Edition). pp. 32-33. Springer – Verlag) and [Sanz-Burata et al. (Sanz-Burata, M., Irurre-Perez, J., Julia-Arechaga, S. 1970. "Resolution of racemic ketones and aldehydes via diastereoisomeric acetals by gas-liquid chromatography. II. Diastereoisomeric ketals with 2,3-butanediol." *Afinidad*. Vol. 27(281). pp. 698-704) or Laskar et al. (Laskar, D.D, Prajapati, D., Sandhu, J.S. 1999. "Cadmium Iodide Catalyzed and Efficient Synthesis of Acetals under Microwave Irradiation." *Chemistry Letters*. Vol.12. pp. 1283-1284).]

3. Mao et al. teach compounds including carvone [0027] as "parent" ketones used to produce ketals for use in delivering fragrance in detergents. The compounds taught are for use in compositions with pH of at least 7.1 [0015]. As the compound in the composition is hydrolyzed, it produces a favorable fragrance [0014].

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4. Mao et al. are silent as to the specific carvone ketals (acetals) for use in their invention, as well as to the use of their invention as a flavoring agent in foods, body care products or pharmaceutical preparations.
5. Sanz-Burata et al. teach the compound carvone 2,3-butylene glycol acetal (Table 1). Though not shown in the table, Sanz-Burata et al. state their starting carvone is (-)-carvone (p. 699).
6. One of ordinary skill in the art at the time the invention was made would have found it obvious to try carvone 2,3-butanediol (2,3 butylene glycol) acetal as taught by Sanz-Burata et al. for use in a fragranced product as taught by Mao et al. The use of this compound would not have required undue experimentation on the part of the artisan, and would have been expected to result in products with acceptable fragrances.
7. Alternatively, Laskar et al. teach the compound carvone ethylene glycol acetal (Table 1 line 3m).
8. One of ordinary skill in the art at the time the invention was made would have found it obvious to try carvone ethylene glycol acetal as taught by Laskar et al. for use in a fragranced product as taught by Mao et al. The use of this compound would not have required undue experimentation on the part of the artisan, and would have been expected to result in products with acceptable fragrances.
9. Regarding the use of the carvone acetals in products including comestibles, body care products and pharmaceuticals, carvone is known as a major component of spearmint oil. Spearmint oil is well known and widely used

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for flavoring such items as chewing gum and product for oral hygiene use

(Ashurst pp. 32-33).

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized carvone acetals as taught by Mao et al. in personal care and comestible products as taught by Ashurst. The use of carvone was already widely known, and one of ordinary skill would have been able to substitute carvone acetals in these products with the expectation that the flavor properties would be improved in products with a pH above 7.1. Further, the precise amount of carvone acetal to use in the final product would be determinable by one of ordinary skill without undue experimentation. A favorable product would be expected with the use of the carvone acetals.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz-Burata et al.

12. Sanz-Burata et al. teach the compound carvone 2,3-butylene glycol acetal as detailed above.

13. One of ordinary skill in the art at the time the invention was made would have considered Applicants claimed compound (-)-carvone 1,2-butylene glycol acetal to be obvious over the compound as taught by Sanz-Burata et al. The production of (-) carvone 1,2-butylene glycol as claimed by Applicants would have required the starting material 1,2-butanediol instead of 2,3-butanediol as taught by Sanz-Burata et al. This substitution of starting material would not have

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required undue experimentation on the part of the artisan, and would have been expected to result in Applicants' claimed compound.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nikki H. Dees  
Examiner  
Art Unit 1794

/Carol Chaney/

Supervisory Patent Examiner, Art Unit 1794